

NOTES ON SOME FISHES COLLECTED BY JAMES G. SWAN IN
WASHINGTON TERRITORY, INCLUDING A NEW SPECIES OF
MACRURUS.

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The following notes on one of the recent collections received from Mr. Swan were nearly finished two months ago, but other duties interrupted their completion until now. Eleven species are mentioned, one of which is described as new to science. Another (*Delolepis virgatus*) was previously unknown so far south, and a third (*Brama raii*) was only recently brought to notice by Mr. Swan as an inhabitant of the coast of his territory and waters northward to Vancouver Island.

1. *Macrurus acrolepis*, new species.

The credit of discovering the first species of *Macrurus* known to occur on the Pacific coast of the United States is due to Mr. Swan, who is well aware that even a mutilated fish is not to be thrown away until its identity is fully established. The type of the present description was rescued by Mr. Swan from the stomach of a seal; its catalogue number is 32496; its length, 635 millimeters; a small portion of the tail is wanting, and the belly is almost wholly digested. There is no difficulty, however, in making out the characters which distinguish this species from all others known to me.

Description.—The shape of the body does not differ materially from that of *M. fabricii*. The height at origin of ventral is contained 7 times in extreme length; at origin of anal the body height is contained $9\frac{1}{2}$ times in extreme length. There are about 7 or 8 rows of scales between the lateral line and the base of the first dorsal.

The length of the head is contained $4\frac{1}{2}$ times in extreme length; its greatest height is little more than one-half its length, and is contained 8 times in total length. The greatest width of the head equals three-fourths of its greatest height. The width of the interorbital area equals one-half the length of the lower jaw, or three-fourths of the diameter of the orbit. The snout is moderately long and pointed, its length being about one-fourth that of the head. The length of the upper jaw is a little more than one-third of that of the head, and is contained $12\frac{1}{2}$ times in extreme length. The length of the lower jaw equals the width of the head and twice the interorbital distance. The distance from the tip of the snout to the orbit equals the length of the orbit.

The first dorsal is constructed after the usual form, consisting of a minute first ray, followed by a long ray serrated along its anterior margin, and by additional rays which diminish in size rapidly. The distance of this dorsal from the snout equals 3 times the length of the upper jaw; the length of its base equals the length of the orbit. The second

ray is imperfect; the portion now present is about as long as the lower jaw.

The second dorsal is separated from the end of the first by a short space equal to only one-third the length of the snout and three-tenths the length of the base of first dorsal. Its first ray is quite short, only one-third as long as the longest, which is about one-third as long as the orbit.

The distance of the anal from the snout is contained $2\frac{1}{2}$ times in extreme length. That which is apparently the first ray is nearly as long as the snout, while the longest ray is nearly as long as the orbit.

The distance of the pectoral from the snout is slightly greater than the length of the head. The length of the pectoral is nearly one-half that of the head.

The distance of the ventral origin from the snout is contained 5 times in extreme length; the length of the ventral is about one-eighth of extreme length and equals twice that of the longest anal ray.

Radial formula: B. VI; 1st D. II, 11; 2d D. 111 +; A. 94 +; P. 20, V. 8.

Measurements.

[Current number of specimen, 32496. Locality, Port Townsend, Wash.]

	Millime- ters.	100ths of length.
Extreme length.....	635	.....
Body:		
Height at ventrals.....	90	14.0
Height at anal origin.....	68	10.7
Head:		
Greatest length.....	139	22.0
Greatest height.....	80	12.6
Greatest width.....	61	9.6
Width of interorbital area.....	30	4.7
Length of snout.....	36	5.7
Length of operculum.....	29	4.6
Length of upper jaw.....	50	8.0
Length of lower jaw.....	61	9.6
Distance from snout to orbit.....	40	6.3
Diameter of orbit.....	40	6.3
Dorsal (spinous):		
Distance from snout.....	149	23.5
Length of base.....	40	6.3
Length of first spine.....	3	.....
Length of second spine.....	62+	.....
Soft:		
Distance from snout.....	201	31.7
Length of first ray.....	5	.....
Length of longest ray.....	14	.....
Anal:		
Distance from snout.....	250	40.0
Length of first ray (!).....	35	5.5
Length of longest ray.....	39	6.0
Pectoral:		
Distance from snout.....	142	22.4
Length.....	66	10.4
Ventral:		
Distance from snout.....	127	20.0
Length.....	78	12.8
Branchiostegals.....	VI	.....
Dorsal.....	II, 11, 111+	.....
Anal.....	94+	.....
Pectoral.....	20	.....
Ventral.....	8	.....

2. *Gadus morrhua* Linné.

32494 (306). Port Townsend, Wash. Terr., 1882.

3. *Delolepis virgatus* Bean.

32547. Port Angelos, Wash. Terr., Feb. 8, 1883. .

This example was picked up on the beach by Capt. Thomas Stratton. The tail is imperfect. Mr. Swan writes that the species is seen occasionally in the Victoria market. Port Angelos is the most southern locality for the species so far known, and this is the third example seen by us.

4. *Xiphister mucosus* (Grd.) Jordan.

32499 (303). Port Townsend, 1882.

A single large individual with the following radial formula: D. LXXIV; A. II, 48.

5. *Anarrhichthys ocellatus* Ayres.

32492 (305). Port Townsend, 1882.

6. *Hexagrammus superciliosus* (Pall.) Jor. & Gilb.

32500 (307). Port Townsend, 1882.

7. *Brama rai* (Bloch) Schn.

32493 (313). Port Townsend, 1882.

Mr. Swan has previously sent examples of this species from Washington Territory, and a paper based upon them and a specimen from Grand Banks was prepared for Volume IV of these Proceedings, but it was lost and not printed. The fish, according to Mr. Swan, is not uncommon off Vancouver Island, and is esteemed for its edible qualities.

8. *Hypomesus pretiosus* (Grd.) Gill.

32502. Port Townsend, 1882.

9. *Salmo purpuratus* Pallas.

32503. Port Townsend, 1882.

10. *Ptychochilus oregonensis* (Rich.) Girard.

32495 (311). Port Townsend, 1882.

32497 (310). Port Townsend, 1882.

32498 (309). Port Townsend, 1882.

The last has the following among other characters: D. iii, 8; A. iii, 7; scales 13—76—9.

11. *Chimæra collieri* Bennett.

32501 (302). Port Townsend, 1882.

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Washington, June 22, 1883.